



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-2957; Directorate Identifier 2015-NM-089-AD; Amendment 39-18218; AD 2015-15-09]**

**RIN 2120-AA64**

**Airworthiness Directives; BAE Systems (Operations) Limited Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule; request for comments.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all BAE Systems (Operations) Limited Model 4101 airplanes. This AD requires a one-time inspection for damage of the stop arms of the stop plates, an adjustment of the electric trim limit switches, and replacement of the stop plates with newly manufactured stop plates if necessary. This AD was prompted by a report that the pitch trim jammed in the fully down position. We are issuing this AD to detect and correct broken stop arms of the stop plates, which could lead to the pitch trim jamming, loss of control of the elevator trim, and possible reduced control of the airplane.

**DATES:** This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact BAE Systems (Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone: +44 1292 675207; fax: +44 1292 675704; email: [RAPublications@baesystems.com](mailto:RAPublications@baesystems.com); Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind

Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-18218.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-18218; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-227-1175; fax: 425-227-1149.

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2015-0099, dated June 3, 2015 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all BAE Systems (Operations) Limited Model 4101 airplanes. The MCAI states:

An in-service event was reported of the Pitch Trim jammed in the fully down position. During the event, the trim circuit was adjusted fully nose down and the swaged stop on the trim cable passed beyond the stop plates. With gear down and the autopilot disconnected, the aeroplane pitched nose down and, even with the control column pulled fully back, the pilot was unable to prevent descent. The trim circuit was freed and control restored by the combined efforts of both pilots turning the trim handwheels, which forced the swaged stop on the trim cable back past the broken stop plates. The results of the technical investigation revealed that the pitch trim servo motor travel stops were incorrectly adjusted, allowing the servo motor to force contact of the swaged stop on the trim cable with the stop plates, and parts of the stop plates breaking off.

This condition, if not detected and corrected, could lead to loss of control of the elevator trim, possibly resulting in reduced control of the aeroplane.

To address this unsafe condition, BAE Systems (Operations) Ltd issued Inspection Service Bulletin (ISB) 27-068 to provide instructions to inspect and correct pitch trim servo motor travel stop adjustment and to install new stop plates made of improved (more robust) material.

For the reasons described above, this [EASA] AD requires a one-time [detailed] inspection [for damage of the stop arms of the stop plates, an adjustment of the electric trim limit switches] to correct adjustment of the pitch trim servo motor travel stops to prevent the jam condition and, if damage [including broken stop arms of the stop plates] is found, replacement of the stop arms and plates.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-18218.

### **Related Service Information under 1 CFR part 51**

BAE Systems (Operations) Limited has issued Inspection Service Bulletin J41-27-068, dated January 21, 2014. The service information describes procedures for a one-time inspection for damage of the stop arms of the stop plates, an adjustment of the

electric trim limit switches, and replacement of the stop plates with newly manufactured stop plates if necessary. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

#### **FAA's Determination and Requirements of this AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

#### **FAA's Determination of the Effective Date**

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because a pitch trim that has jammed in the fully down position could lead to loss of control of the elevator trim, and possible reduced control of the airplane. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

#### **Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an

address listed under the ADDRESSES section. Include “Docket No. FAA-2015-18218; Directorate Identifier 2015-NM-089-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

### **Costs of Compliance**

We estimate that this AD affects 15 airplanes of U.S. registry.

We also estimate that it will take about 1 work-hour per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$1,275, or \$85 per product.

In addition, we estimate that any necessary follow-on actions will take about 1 work-hour and require parts costing \$156, for a cost of \$241 per product. We have no way of determining the number of aircraft that might need these actions.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII,

Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2015-15-09 BAE Systems (Operations) Limited:** Amendment 39-18218. Docket No. FAA-2015-2957; Directorate Identifier 2015-NM-089-AD.

#### **(a) Effective Date**

This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to BAE Systems (Operations) Limited Model 4101 airplanes, certificated in any category, all serial numbers.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 27, Flight controls.

#### **(e) Reason**

This AD was prompted by a report that the pitch trim jammed in the fully down position due to incorrectly adjusted travel stops of the pitch trim servo motor, causing parts of the stop plates to break off and allowing the servo motor to force contact of the swaged stop on the trim cable with the stop plates. We are issuing this AD to detect and

correct broken stop arms of the stop plates, which could lead to the pitch trim jamming, loss of control of the elevator trim, and possible reduced control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) One-Time Inspection**

Within 30 days after the effective date of this AD: Do a one-time detailed inspection for damage of the stop arms of the stop plates, and an adjustment of the electric trim limit switches, in accordance with the Accomplishment Instructions of BAE Systems (Operations) Limited Inspection Service Bulletin J41-27-068, dated January 21, 2014. If any damage is found, before further flight, replace the stop plate with a newly manufactured stop plate made of tufnol, in accordance with the Accomplishment Instructions of BAE Systems (Operations) Limited Inspection Service Bulletin J41-27-068, dated January 21, 2014.

**(h) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-227-1175; fax: 425-227-1149.

Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or BAE Systems (Operations) Limited's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(i) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2015-0099, dated June 3, 2015, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-2957.

**(j) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) BAE Systems (Operations) Limited Inspection Service Bulletin J41-27-068, dated January 21, 2014.

(ii) Reserved.

(3) For service information identified in this AD, contact BAE Systems (Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone: +44 1292 675207; fax: +44 1292 675704; email: RApublications@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on July 15, 2015.

Suzanne Masterson,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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